
Safety

One of the goals of the *2001 Regional Transportation Plan* is to improve safety for all users of the transportation system — drivers and passengers, transit users, bicyclists and pedestrians.

This report uses statistics on injuries and fatalities resulting from collisions to gauge safety. The most widely

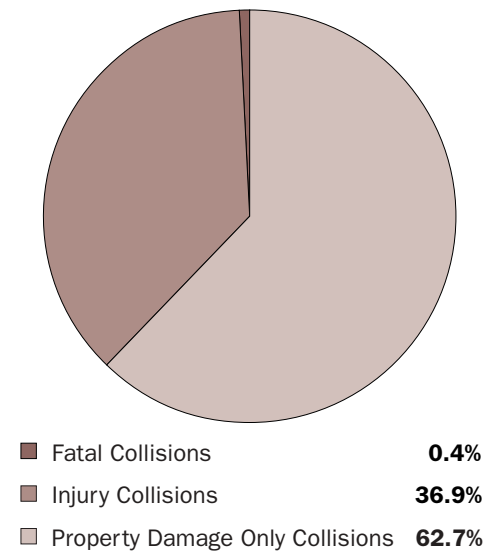
used safety information on automobile collisions with other cars, bicyclists and pedestrians comes from data assembled by the California Highway Patrol. Transit operators report injuries and fatalities occurring on their systems to the Federal Transit Administration.

Despite Increasing Travel, Collision Numbers Vary Little

When millions of people drive billions of miles each year, accidents will happen. In 2001, over 100,000 accidents were reported on Bay Area roadways. Fortunately, most of these accidents result in property damage only (see pie chart). But some are more serious. In this section we take a look at statistics on the number of injuries and fatalities from motor vehicle collisions reported in the Bay Area. In the following section, we pay special attention to those motor vehicle collisions that involve bicycles and pedestrians.

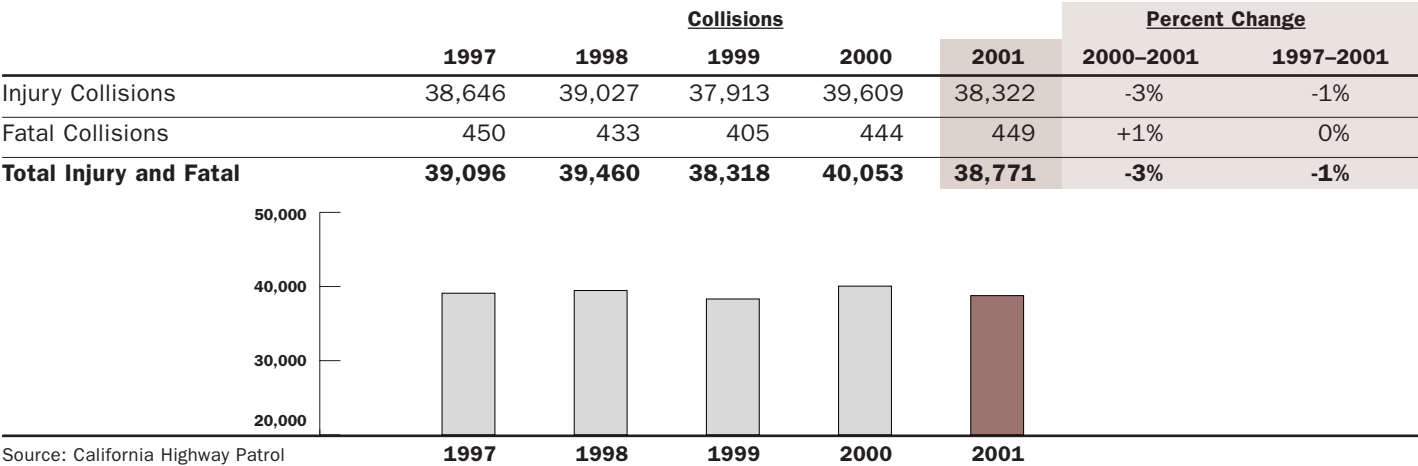
Several factors influence the number of injury and fatal collisions in the Bay Area: driver education and behavior, vehicle safety features, roadway conditions, and, of course, the number of miles driven (on both freeways and local roadways). With respect to this last point, studies show that although freeway driving accounts for approximately 60 percent of all vehicle miles driven in the Bay Area, only about one-quarter of all collisions occur on freeways.

Motor Vehicle Collisions in the Bay Area in 2001: Fatal, Injury, Property Damage



Source: California Highway Patrol
103,990 collisions = 100%

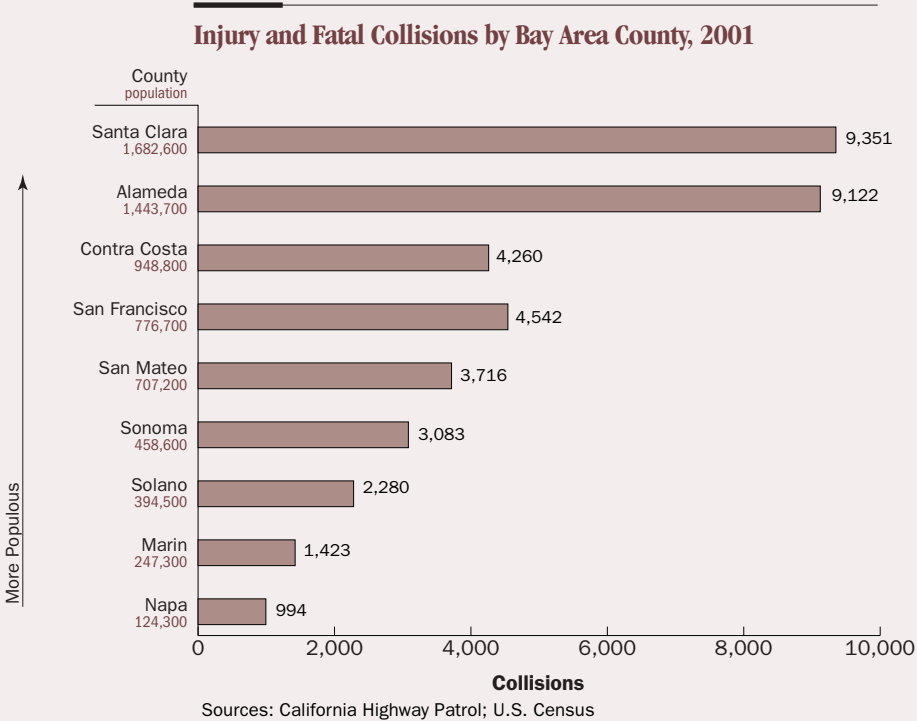
Injury and Fatal Collisions on Bay Area Roadways, 1997–2001



In 2001 there were 38,771 motor vehicle collisions that resulted in injuries or fatalities on Bay Area roads and freeways. (Motor vehicle refers to all motorized conveyances that use the roads — private automobiles, commercial trucks, buses, motorcycles, etc.) As can be seen in the table on page 30, the number of injury and

fatal collisions fluctuated very little from year to year during the recent five-year period from 1997 to 2001, despite increased travel on Bay Area roads over this period. The same goes for the individual components of the measure — injury collisions and fatal collisions. These also remained within a relatively narrow range.

A Closer Look – We can get a rough idea of the geographical distribution of the injury and fatal collisions that occurred in 2001 by breaking them out by county of occurrence. Perhaps not surprisingly, a given county’s share of collisions correlates closely with its size, as measured by population (see bar graph).



Motor Vehicle Collisions Involving Walkers and Cyclists On Downward Trend

Injuries and fatalities resulting from motor vehicle collisions are not all suffered by motorists. A considerable number of incidents involve bicyclists and pedestrians as well. Indeed, of the 38,771 injury-or-fatality motor vehicle collisions reported in the Bay Area in 2001 (see page 30), 3,183 involved pedestrians and 2,586 involved bicyclists (see table below).

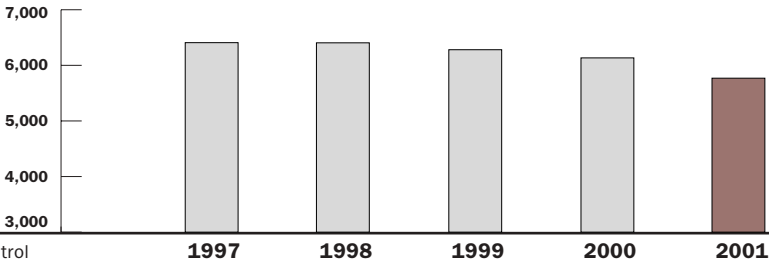
Together, these 5,769 collisions comprise 15 percent of all injury-and-fatality motor vehicle collisions in 2001. If, however, we factor out collisions on freeways (which

rarely involve bicyclists or pedestrians), the bicycle/pedestrian share of collisions on the remaining, non-freeway roadways rises to 20 percent — one fifth of all injury-or-fatality incidents that occurred on these roads in 2001 (see pie chart on next page). This figure helps to explain why the safety of bicyclists and pedestrians is an issue of concern in communities around the Bay Area.

The data show evidence of a slight general downward trend — for the one-year and five-year periods shown — in injury collisions involving bicycles or pedestrians.

Injury and Fatality Motor Vehicle Collisions Involving Pedestrians or Bicyclists, 1997–2001

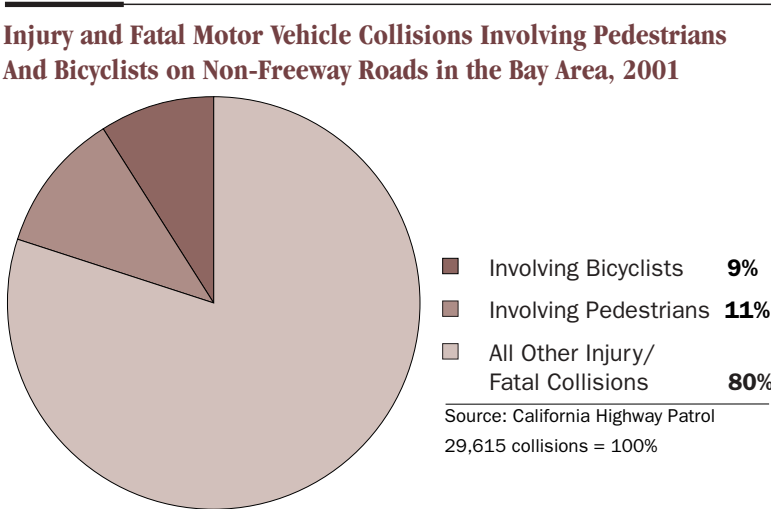
	Collisions					Percent Change	
	1997	1998	1999	2000	2001	2000–2001	1997–2001
Collisions Involving Pedestrians							
Injury Collisions	3,371	3,258	3,099	3,173	3,080	-3%	-9%
Fatal Collisions	133	125	97	134	103	-23%	-23%
Subtotal	3,504	3,383	3,196	3,307	3,183	-4%	-9%
Collisions Involving Bicyclists							
Injury Collisions	2,884	3,004	3,066	2,810	2,566	-9%	-11%
Fatal Collisions	20	18	19	17	20	+18%	0%
Subtotal	2,904	3,022	3,085	2,827	2,586	-9%	-11%
Total Involving Bicyclists Or Pedestrians	6,408	6,405	6,281	6,134	5,769	-6%	-10%



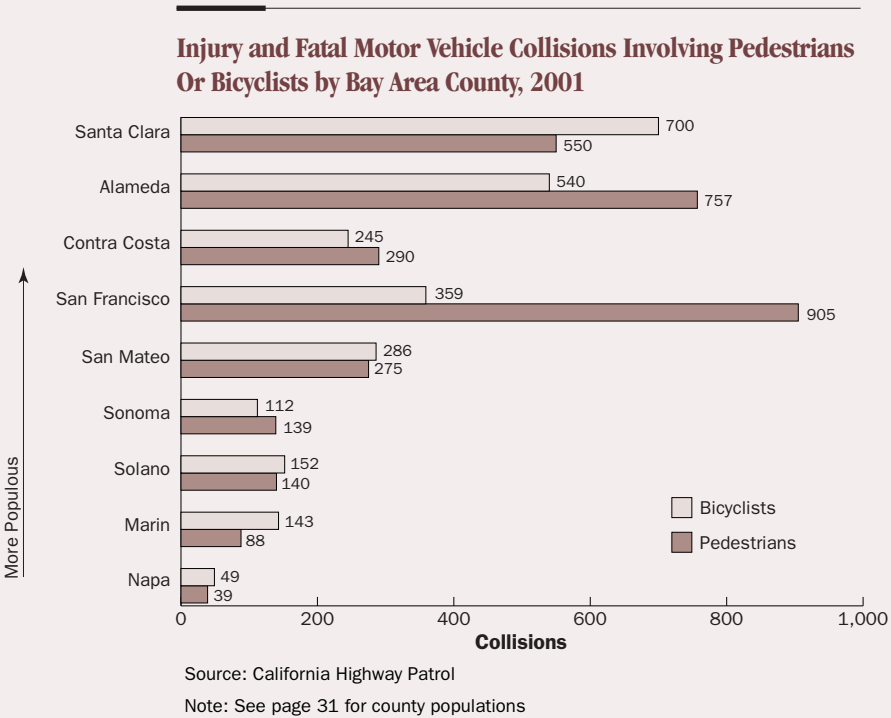
Source: California Highway Patrol

Fatal collisions involving bicyclists are very small in absolute terms, and the figures showing percentage change should also be viewed in this context.

It should be noted that the statistics presented here include only motor vehicle collisions that are reported to law enforcement authorities. Collisions involving pedestrians and bicyclists that are not reported could be significant in number and would make these totals higher.



A Closer Look — Areas where lots of people walk or bike are likely to have greater numbers of collisions involving pedestrians and bicyclists. In the absence of better data on the amount of bicycling and walking in the Bay Area, we can look for patterns based on population by county. Notable in the bar graphs at right are the high number of pedestrian injuries and fatalities in San Francisco. Here, large numbers of residents and downtown workers walk to their destinations because this is often the quickest and most convenient means of transportation.



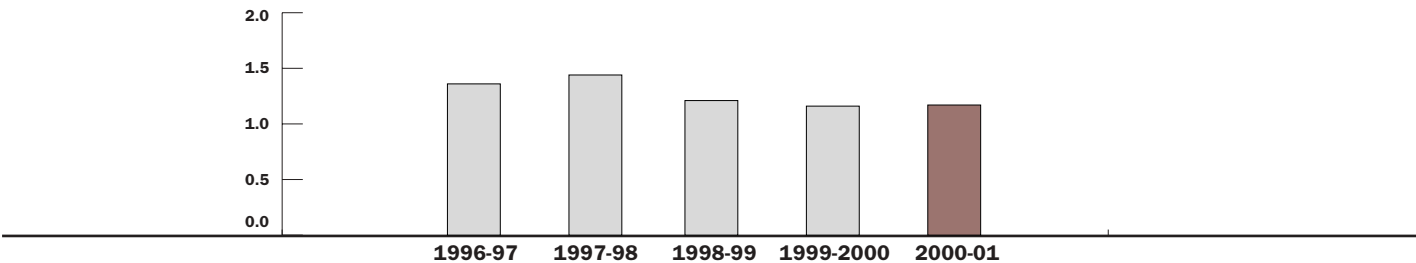
Key Transit Safety Measure Improves and Holds Steady

The number of injuries or fatalities involving transit vehicles in the Bay Area fluctuated within a narrow range over the most recent five-year period, even as the number of miles traveled on transit rose steadily. The result was a noticeable improvement in the per-mile safety record of Bay Area transit operators in the fiscal year 1996-97 to 2000-01 time frame covered by this report (see table and graph below). This trend has held steady over the last

couple of years, despite a slight increase in the total number of injury-or-fatality incidents. In 2000-01, for instance, the number of injuries and fatalities increased by 185, or 6 percent. But because the total number of miles traveled by passengers also increased (by 5 percent) the rate of injuries and fatalities increased only minimally (to 1.17 injuries/fatalities per million passenger miles, up from 1.16 in fiscal year 1999-2000).

Rate of Injuries and Fatalities on Bay Area Transit, Fiscal Years 1996-97–2000-01

	1996-97	1997-98	1998-99	1999-2000	2000-01	Percent Change	
						FY 1999-2000– 2000-01	FY 1996-1997– 2000-01
Injuries	3,164	3,455	3,014	3,057	3,240	+6%	+2%
Fatalities	15	20	21	31	33	+6%	+120%
Total Injuries and Fatalities	3,179	3,475	3,035	3,088	3,273	+6%	+3%
Passenger Miles (Millions)	2,331	2,416	2,509	2,670	2,807	+5%	+20%
Rate of Injuries and Fatalities Per Million Passenger Miles	1.36	1.44	1.21	1.16	1.17	+1%	-14%



Source: Federal Transit Administration

However, the increasing number of fatalities involving Bay Area transit vehicles stands out in sharp relief (although the numbers are relatively small considering the size of the regional transit system). Included in this category are deaths on rail tracks judged to be suicides, and there have been a number of these incidents in the Bay Area in recent years.

The statistics reported in this section reflect injuries and fatalities resulting from a wide range of safety incidents – from people who slip and fall while boarding a bus to those injured or killed in collisions with transit vehicles. Included in the statistics are incidents involving transit passengers, employees and others.